

UNITED STATES DEPARTMENT OF  
ANIMAL AND PLANT HEALTH INSPECULTURE  
SERVICE1. REGISTRATION NO. 109  
34-R-0001FORM APPROVED  
OMB NO. 0579-0036**ANNUAL REPORT OF RESEARCH FACILITY  
(TYPE OR PRINT)**2. HEADQUARTERS RESEARCH FACILITY (Name and Address, as registered with USDA,  
include Zip Code)  
UNIVERSITY OF MICHIGAN  
1301 CATHERINE STREET  
ANN ARBOR, MI 48109  
(734) 763-8028

3. REPORTING FACILITY (List all locations where animals were housed or used in actual research, testing, teaching, or experimentation, or held for these purposes. Attach additional sheets if necessary.)

## FACILITY LOCATIONS(sites)

See Attached Listing

## REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use APHIS FORM 7023A)

A. Animals Covered By The Animal Welfare Regulations	B. Number of animals being bred, conditioned, or held for use in teaching, testing, experiments, research, or surgery but not yet used for such purposes.	C. Number of animals upon which teaching, research, experiments, or tests were conducted involving no pain, distress, or use of pain- relieving drugs.	D. Number of animals upon which experiments, teaching, research, surgery, or tests were conducted involving accompanying pain or distress to the animals and for which appropriate anesthetic, analgesic, or tranquilizing drugs were used.	E. Number of animals upon which teaching, experiments, research, surgery or tests were conducted involving accompanying pain or distress to the animals and for which the use of appropriate anesthetic, analgesic, or tranquilizing drugs would have adversely affected the procedures, results, or interpretation of the teaching, research, experiments, surgery, or tests. (An explanation of the procedures producing pain or distress in these animals and the reasons such drugs were not used must be attached to this report)	F. TOTAL NO. OF ANIMALS (Cols. C + D + E)
4. Dogs			295		295
5. Cats			34		34
6. Guinea Pigs		286	1005		1291
7. Hamsters			20		20
8. Rabbits		272	522		794
9. Non-Human Primates		17	55	62	134
10. Sheep		97	198		295
11. Pigs			300		300
12. Other Farm Animals					
Cows			5		5
13. Other Animals					
Degu		389	324		713
Gerbils			12		12
Pocket Gophers		8			8

## ASSURANCE STATEMENTS

- 1) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2) Each principal investigator has considered alternatives to painful procedures.
- 3) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all the exceptions is attached to this annual report. In addition to identifying the IACUC-approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4) The attending veterinarian for this research facility has appropriate authority to ensure the provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL  
(Chief Executive Officer or Legally Responsible Institutional official)

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143)

SIC

&amp; TITLE OF C.E.O. OR INSTITUTIONAL OFFICIAL (Type or Print)

(b)(6), (6)(7)(C)

(b)(6), (6)(7)(C)

DATE SIGNED

11/29/06

UNITED STATES DEPARTMENT OF AGRICULTURE  
ANIMAL AND PLANT HEALTH INSPECTION SERVICE

1. REGISTRATION NO. 34-R-0001 CUSTOMER NO. 109

FORM APPROVED  
OMB NO. D579-0036

**CONTINUATION SHEET FOR ANNUAL REPORT  
OF RESEARCH FACILITY  
(TYPE OR PRINT)**

REPORT OF ANIMALS USED BY OR UNDER CONTROL OF RESEARCH FACILITY (Attach additional sheets if necessary or use this form.)

## **ASSURANCE STATEMENTS**

- 1) Professionally acceptable standards governing the care, treatment, and use of animals, including appropriate use of anesthetic, analgesic, and tranquilizing drugs, prior to, during, and following actual research, teaching, testing, surgery, or experimentation were followed by this research facility.
- 2) Each principal investigator has considered alternatives to painful procedures.
- 3) This facility is adhering to the standards and regulations under the Act, and it has required that exceptions to the standards and regulations be specified and explained by the principal investigator and approved by the Institutional Animal Care and Use Committee (IACUC). A summary of all the exceptions is attached to this annual report. In addition to identifying the IACUC-approved exceptions, this summary includes a brief explanation of the exceptions, as well as the species and number of animals affected.
- 4) The attending veterinarian for this research facility has appropriate authority to ensure the provision of adequate veterinary care and to oversee the adequacy of other aspects of animal care and use.

CERTIFICATION BY HEADQUARTERS RESEARCH FACILITY OFFICIAL

(Chief Executive Officer or Legally Responsible Institutional official)

I certify that the above is true, correct, and complete (7 U.S.C. Section 2143)

**SIGNATURE OF C**

**8. TITLE OF C.E.O. OR INSTITUTIONAL OFFICIAL (Type or Print)**

**DATE SIGNED**

(b)(6) (6)(7)(C)

(b)(6), (6)(7)(C)

**APHIS FORM 7023A**  
**(AUG 91)**

**1 (Replaces VS FORM 18-23 (Oct 88) which is obsolete.)**

## APP. 1 - HEADQUARTERS

#### Column E Explanation

This form is intended as an aid to completing the Column E explanation. It is not an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

1. Registration Number: 34-R-0001
2. Number 41 of animals used in this study.
3. Species (common name) Macaque of animals used in the study.
4. Explain the procedure producing pain and/or distress.

Macaques in HUC F have been placed such due to their use in antinociception assay. The main aim of this study is to test compounds (i.e. analgesics) and their ability to produce analgesia. The procedure involves exposure of the Macaque's tail to water of temperature ranging from 40-55C for a period of not more than 20 seconds. A localized compound is administered to the tail. The measure of antinociception is the latency for animals to withdraw their tails from warm water. Either the animal or the experimenter will remove the tail at or before the 20 second mark.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and /or distress relief would interfere with test results. (For Federally mandated testing, see Item 6 below)

If standard analgesic drugs were administered, the ability of the lab to interpret data from test compounds would be impossible.

6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9 CFR 113.102):

Agency \_\_\_\_\_ CFR \_\_\_\_\_

#### Column E Explanation

This form is intended as an aid to completing the Column E explanation. It is not an official form and its use is voluntary. Names, addresses, protocols, veterinary care programs, and the like, are not required as part of an explanation. A Column E explanation must be written so as to be understood by lay persons as well as scientists.

1. Registration Number: 34-R-0001

2. Number 21 of animals used in this study.

3. Species (common name) Macaque of animals used in the study.

4. Explain the procedure producing pain and/or distress.

Stress is induced in Macaques by either the administration of anxiogenic compounds or physical restraint. The anxiogenic compounds are

(b)(4)

(b)(4) The method of inducing stress by physical restraint involves either the placing of the subjects in a primate capture net or pulling the rear wall of their home cage forward so as to confine them to a small space in which they cannot move freely. The subjects are not restrained for more than one 30 minute period once per week. Neither are the pharmacological stressors administered more than once per week. During the periods of stress-induction, the subjects are monitored by the experimenter to ensure their physical well-being.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and /or distress relief would interfere with test results. (For Federally mandated testing, see Item 6 below)

The scientific objectives of these studies are to quantify individual differences among animals in their reaction to both pharmacological and physical stressors; to examine the relationship between stress reactivity and an individual subject's motivation to self-administer drugs of abuse; and to determine the extent to which any such differences in an animal's motivation to self-administer drugs of abuse are modulated by stress. Stress is therefore not relieved because it is the independent variable of the experiments, without which they could not be conducted.

6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9 CFR 113.102):

Agency \_\_\_\_\_ CFR \_\_\_\_\_

APHIS Form 7023 Site List

The following sites have been reported by the facility.

---

Registration Number: 34-R-0001  
Customer Number: 109  
Facility: UNIVERSITY OF MICHIGAN  
1301 CATHERINE STREET  
ANN ARBOR, MI 48109  
(734) 763-8028

---

(b)(2)High, (b)(7)(F)

**Annual Report of Research Facility  
University of Michigan**

**List of Exception to the Regulations**

1. Registration Number: 34-R-0001  
Customer Number: 109
2. University of Michigan  
1301 Catherine Street  
Ann Arbor, MI 48109  
(734) 763-8028

<b>Species Covered by the Animal Welfare Regulations</b>	<b>Exception to the Regulations</b>	<b>Rationale</b>
Cats	Housed individually	Adult male intact cats are territorial and their behavior could cause damage to their surgical implants, rendering them useless for experiments, or risk injury to each other.
Cats	24 hour light exposure	Animals are used in sleep studies. This allows the animals to sleep when tested in the laboratory.
Guinea Pigs	House in the same room as mice and rats	Facility space limitations.
Sheep	Housed in 36" x 24" pen for up to 28 days	Surgical procedure requires extensive monitoring. Reducing movement of the sheep prevents damage to catheters/tubing.
Sheep	House in same room as pigs	Facility space limitations.
Pigs	House in same room as sheep	Facility space limitations.
Degu	Constant light cycle	Study psychological effects of constant light.
Degu	Constant dark cycle	Study psychological effects of constant dark.
Degu	Altered cage changing schedule	Tethered animals housed on wire mesh (bedding below changed), sanitized at end of study period, 4-6 weeks.